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Selling to the 'Mind' of the Insurance Prospect: A Mind Genomics Cartography of Insurance for Home Project Contracts

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Abstract

The paper introduces the science and process of Mind Genomics as a process by which to reveal the mind of prospects regarding the factors surrounding insurance, specifically insurance that the home contractor will complete the project satisfactorily. The objective is to uncover the existence and nature of groups of people sharing the same point of view about what they want in such insurance. The Mind Genomics processes works through experimental design, presenting respondents with vignettes, combinations of messages about insurance, totally different combinations for each respondent. The subsequent analysis by regression reveals which messages make the respondent feel comfortable with the project and the insurance, versus which messages make the respondent feel insecure, and ready to drop the project. The data suggest three mind-sets of people; project-focused, contractor-focused, and legal/finance-focused, respectively, responding to different aspects of the contracting relationship. We introduce the PVI, personal viewpoint identifier, to assign a new person to one of these three mind-sets, to aid sales and client service.

Keywords: Mind genomics, Cartography, Insurance.

Background

Insurance is a business, an exercise in statistics, and a game of psychology between players, all at the same time. The academic literature about insurance covers topics ranging from the statistical analysis of norms to the selling of policies, and of course to the fulfillment of obligations. When people buy insurance, they do so in hopes of never having to use it, and are at the mercy of two competing motives, viz., best coverage and lowest cost. When the customer is knowledgeable about the topic, or even thinks beyond the momentary transaction, the issue comes up as to the nature of the interaction with the insurance company should there arise a problem for which the insurance was originally purchased.

There have been some papers on the psychology of home construction insurance [1,2]. The most instructive information about home contractor insurance comes from the Internet, specifically from organization specializing in contractor insurance or specific brokers. Here are three examples, phrased clearly to alert readers to the need for such insurance. Note that these are written from the point of view of the contractor, who must carry the insurance, and NOT from the point of view of insuring the homeowner. Insurance.com asked 1,000 people about their home improvement projects to see whether they were a success or failure. Findings reveal that going over budget and not completing the work are the top renovation fails. Of those who had a home renovation fail: 41% spent more than expected, 39% didn't finish an important project, 12% had arguments with their partner or spouse as a result of the renovation, 5% experienced fire, flooding or other damage due to the work, 2% damaged a neighbor's property https://www.insurance.com/home-and-renters-insurance/contractor-renovation-remodel. You should verify your contractor's insurance coverage before hiring him or her by asking to review a copy of the contractor's policies. It should include both a commercial business/general liability insurance policy and workers compensation. The latter is important because without it, workers remodeling your home could sue you if injured. Though your liability insurance would pay for that, up to your limits, it's best to avoid the situation altogether. https://www.insurance.com/home-and-renters-insurance/contractor-renovation-remodel General liability insurance policies will usually cover a broad range of damages, including:

- Faulty workmanship
- Job-related injury
- Advertising injury/defamation

Contractors or developers may actually be required to have a minimum level of liability insurance either by law in some states or to win certain contracts that require it. Companies who complete many design-build projects will definitely want to have liability insurance in case they are sued for mistakes. Also, subcontractors are frequently required to carry liability insurance in order to work for certain general contractors. https://constructioncoverage.com/construction-insurance#types.

The academic literature of insurances deals with topics which are in the domain of specialists, such as the way the customers decide about insurance, legal issues, and other serious topics [2-5]. The subjective aspects, especially through the theory of reasoned action, tend to be bland, without feeling, almost as if they were presented from 30,000 feet, without the granularity of everyday life [6-8].

There is a need in the academic literature for studies which deal with the emotions of people considering insurance. The topic of insurance as an emotional issue is not unusual because it is the emotion, the anticipation of negative results from one's action, or a negative situation in one's life, which drives the purchase of insurance. There is the tendency to delay, to rationalize, tendencies that must be overcome through marketing and sales. Those who are trying to sell insurance are not interested in theory, but rather in the correct messages which 'sell' the insurance.

For the business person, the issue is what should be offered, and what should e communicated about what is being offered. There is no lack of information about what should be offered; one need only read advertisements for insurance to understand the depth of insight into the sensitivities and soft spots of insurance buyers, possessed by those who sell insurance. The goal of this paper is to apply the rigorous study of communication to the offerings of an insurance company wishing to sell contractor insurance. The objective is to begin a series of investigations into the nature of the messaging of insurance from the point of view of how a typical respondent 'feels'.

Method

The process to understand the mind of the prospective insurance buyer followed the steps of Mind Genomics, a newly emerging science of the 'mind of the everyday' [9-11]. Mind Genomics explores the mind of the everyday by presenting respondents with vignettes, combinations of elements (messages, ideas), obtaining ratings, deconstructing the ratings into the contributions of the separate elements using regression, and by so doing revealing the mind of the respondent, standing in for the prospective insurance purchaser.

Step 1: Raw Material

Mind Genomics works at the granular level, with test stimuli drawn from everyday life. Step 1 is Socratic, beginning with a set of related questions which 'tell a story', and then generating four answers to each question, representing alternatives. The exercise for this study generated the questions and answers shown in **Table 1**. These do not, in any fashion, reflect the full gamut of possible questions and answers in insurance, but rather represent a tractable set of ideas. An ingoing world-view in Mind Genomics is that it is better to iterate quickly and inexpensively to find the answer, rather than to create a possibly ponderous study which might implode from its own gravitas.

Question A: What is the contractor hired for?	
A1	Contractor hired for repairing a roof.
A2	Contractor hired for remodeling kitchen.
A3	Contractor hired for repairing problems and bringing the house into code
A4	Contractor hired for eliminating dangerous materials (oil tank, radon, etc)
Question B: What is the contractor experience?	
B1	Contractor is bonded, licensed, and insured expert
B2	Contractor is neighborhood favorite, locally highly ranked
B3	Contractor is a long-term family friend
B4	Contractor is recommended by a local business with whom you're doing the project
Question C: What can go wrong?	
C1	Project delivered 90 days late
C2	Project delivered 30% over budget
C3	Contractor unexpectedly disappeared and needed to rebid
C4	Project not of quality - inspected and failed inspection
Question D: What are the outcomes re insurance?	
D1	Insurance company tried to refuse to payment via technicalities
D2	Insurance company demands extraordinary amount of documentation
D3	Reputation: Insurance company is known to delay payment for several months, pays after a year.
D4	Insurance company pays in full within 7 days.

Table 1: The four questions, and the four answers (elements) for each question.

In Mind Genomics experiments, the objective is to quickly and inexpensively identify strong-performing elements, and when necessary move on to the next iteration. The choice of four questions, each with four alternative answers, the elements, is based upon the observation that larger numbers of questions and answers at first are thought to generate a 'better experiment' because of more coverage, but become self-defeating as the effort begins to be overwhelming to fill the available slots for elements.

Quite often the larger-scale studies implode, brought to an untimely, early end by the inability of the group to come to a resolution. This is akin to the increasingly observed 'paradox of choice', where decision-making becomes hard, even onerous when the number of possible selections increases [12]. The 4x4 design is a compromise, providing enough variation in stimulus set, but small enough to be executed quickly, and not to be perceived as the one study which will answer everything.

Step 2: Vignettes (Combinations of Elements)

The respondent does not evaluate single elements, the usual process in survey research. Rather, the study is conducted in the form of an experiment, one conducted on the computer, with the respondents evaluating combinations of elements which represent different sets of propositions, or vignettes. The vignettes comprise combinations of the answers, the elements (see Table 1), without, however, the question being present. That is, each vignette presents a simple set of elements without any attempt to connect the answers to create a coherent but often densely worded paragraph. The experimental design combines these 16 elements into small vignettes, each vignette comprising from two to four elements, at most one element or answer from a question. The experimental design ensures that the elements are statistically independent of each other, allowing the data emerging from the study to be analyzed by OLS (Ordinary Least-Squares) regression, either at the individual respondent level or at the group level.

Each respondent evaluated a unique set of 24 vignettes developed according to a permutation scheme which maintained the mathematical integrity of the experimental design, but at the same time ensured that the research covered a great number of combinations. The permutations ensure that the Mind Genomics experiment assesses a great number of combinations, 2400 in the case of the 100 respondents in this study. The objective is to cover a great deal of the underlying design space. Each individual measurement is 'noisy' since it is measured one time. The rationale is that by covering a great deal of the design space through the permutation strategy, one will obtain a clearer, less-error prone estimate of the contribution of the individual elements to the rating. This strategy stands in opposition to the typical strategy of reducing error by replicating the stimulus many times, thus getting a better estimate of the measure of central tendency, the mean.

The strategy of permuting the combinations is analogous to the strategy behind the MRI, which takes many 'pictures' of the same tissue from different angles, and then produces a better, composite, through subsequent computer recreation of the tissue from the different pictures, at different angles [13]. The objective of Mind Genomics is to determine how the respondent weights the different elements to arrive at a decision. Thus, the vignettes are only vehicles to embed the elements, and to present these elements in a way which forces the respondent to assign a 'gut feeling response' to the combination. The creation of 24 combinations prevents the respondent from assigning the 'politically correct answer' or from 'gaming the system'.
Indeed, often the comment from a respondent is of the order of 'I could not figure out what the right answer was…so I guessed'.

Step 3: Steps at the Start of the Start of the Evaluation

The respondents are invited to participated by an email. The on-line panel provider, Luc.id Inc., maintains groups of respondents around the world in more than 40 countries. The respondents have already agreed to participate, and are accustomed to doing surveys. Whereas in

previous years, at least until the advent of the Internet, respondents could be found who had NOT participated during the three months prior to the study, today's world comprises very few of these 'naïve' panelists, without experience. Although the respondents from Luc.id can be said to be 'experienced', they reflect the typical respondents available today, consumers, not experts. At the beginning of the interview the respondent provided information about age, gender and answer a third classification question. How do you feel about insurance companies? 1=I trust them, 2=I have to watch them, 3=I don't trust them, 4=Not applicable.

Step 4: Evaluation of Vignettes

The respondent read the following instructions: Here is the description of a situation about a contractor and insurance. How would you feel about this situation if this were you?

- Definitely avoid this
- Move forward slowly with trepidation
- Move forward quickly with trepidation
- Move forward quickly
- No hesitation

The respondents then read each of the 24 vignettes, doing so fairly quickly (generally less than 5-6 seconds for each vignette). In general, Mind Genomics studies are executed fairly quickly on the Internet, especially when the topic is simple. The entire study lasted about 3-4 minutes for each respondent. The respondents are not deeply interested in the topic, and there is no way for the researcher to subtly influence the respondent regarding either the seriousness of the topic or the expected 'right answer.' Thus, the answers represent the intuitive best guess from the respondents, who are both uncertain about what is correct, but motivated to finish the study with some sense of honesty because they belong to a panel of respondents who do many studies.

Step 5: Transformation of the Ratings

Managers prefer simple information, such as 'yes/no' rather than scalar information. Indeed, the scalar information, while capturing nuances of feeling, is hard to understand. When managers are presented with the results, average ratings on a 5-point scale, for example, often the first question is not about the data themselves in terms of the answers to questions, but rather the more basic question 'what does a 3 mean?', and so forth.

In light of this apparent uncertainty in the interpretation of questions, consumer researchers as well as political pollsters have opted to present their data in binary terms when talking to the public, although they use the metric or scalar data for many of their statistical computations in the background, for other purposes. In the spirit of this effort to make the data simpler to understand we transform the ratings to a binary scale. Ratings of 1-3 are recoded to '0'; ratings of 4-5 are recoded to '100'. To each recoded response we add a very small random number (<10-5), in order to add small but necessary variation to the ratings, for subsequent analyses by OLS (Ordinary Least-Squares Regression).

Step 6: Mind-Set Segmentation

The objective here is to move beyond conventional division of people into age, gender, and even attitude towards insurance companies. Rather, the objective is to divide people by how they respond to messages about a micro-topic, in this case the insurance to be purchase by the homeowner for contractor failure. There would be no other way to divide people by mind-sets, other than 'doing the Mind Genomics experiment and dividing the respondents based on the data from that specific experiment'. The process is straightforward. The data allow us to generate an Generate individual-level model (equation) for each respondent, relating the presence/absence of the 16 elements to the binary transformed ratings for that individual respondent, and then cluster (segment) the respondents into two and three groups (mind-sets) based upon the pattern of the 16 coefficients for each respondent.

Recall that the 24 vignettes for each respondent were created by an underlying experimental design. That designed produced 24 unique vignettes, unlike the 24 vignettes for any other respondent. Each respondent thus generates a set of 24 rows of data, with the first 16 columns of data being the 16 elements, with the cells having either a 0 when the element is absent from the particular vignette, and present when the element is present in the vignette. The 17th column is the binary transformed rating.

The data for each respondent are subject to OLS (ordinary least-squares) regression. The independent variables are the 16 elements, the dependent variable is the binary rating. The result equation, calculated at the respondent level is: Binary Transform=k_0 + k_1(A1) + k_2(A2) … k_{16}(D4). The data matrix now comprises 100 rows of coefficients k1…k16. The additive constant is ignored. The coefficients give a sense of the driving value of the element towards rating 4-5 (4=move forward quickly; 5=no hesitation). The respondents are clustered using k-means clustering [14].

The respondents are objects to be put together in homogeneous groups, based upon the pattern of coefficients. The criterion is the quantity (1-Pearson Correlation (R)). The quantity (1-R) takes on the value 0 when two respondents show a perfectly linear correlation of +1, based on their 16 coefficients, meaning that they virtually identical in the criteria of judgment. They belong in the same cluster or mind-set. Two people belong in different mind-sets when the quantity (1-R) takes on the value 2, which occurs when the coefficients of the two respondents move in precisely opposite directions. These two respondents belong in different clusters, or mind-sets.

Step 7: Create 'GRAND' Models (Equations) for Each Key Subgroup, Relating the Presence/Absence of Elements to the Transformed Rating

The model is expressed in the same format as the model for the individual respondent, except that the model is created using ALL the data from a particular group (age, gender, mind-set, and opinion of contractors). The equation once again is: Binary Transform=k_0 + k_1(A1) + k_2(A2) … k_{16}(D4).

Step 8: Create Models (Equations) for Response Time, for Each Subgroup

The Mind Genomics program measures the response time, defined as the number of seconds (to the nearest 10th of a second) between the time that the vignette was presented to the respondent, and the time that the respondent assigned a rating. Some of that time was taken up by the actual time to push the correct key, but that time is impossible to estimate. The OLS regression (estimated without the additive constant), apportions the response time to the different elements in the vignette. The rationale for not estimating the additive constant is that in the absence of elements, the estimated response time is 0. In contrast, for the rating, the additive constant is estimated because in the absence of elements, the additive constant shows the proclivity to be positive to contractor insurance. The model for response time (in seconds) is expressed as: Response Time=k_1(A1) + k_2(A2) … k_{16}(D4).

Results

We present the results from the study, looking only at the positive coefficients for the transformed rating scale. These are the elements and the key subgroups where the element drives to a rating of YES, operationally defined as a rating of 4 or 5, previously transformed to 100. **Table 2** presents the positive, non-zero elements for total panel, for gender, age and for three of the four self-declared attitudes about insurance companies. The fourth answer, not applicable, had only 6 respondents. The negative and 0 coefficients are not shown because they either represent a desire NOT to move forward and complete the project, or indifference. We will look at the drivers of desire NOT to move forward below, in **Table 4**. The additive constant gives a sense

of the desire to move forward, to finish the project. The additive constant is low for gender (36 for males, 30 for females), suggesting a basic disinterest in moving forward. The low additive constant comes from those age 35-44 and 45+. The older respondents truly not want to finish the project, whereas the younger respondents do want to finish the project. Surprising, those age 25-35 show the most interest in moving forward, to finish the project.

Finally, as expected, those with a self-declared negative attitude towards insurance companies show a low additive constant, a low desire to move forward and finish the project. The elements themselves do not drive the respondents to say that they would like to finish the project. The only elements which really drive interest in the combination of contractor and insurance are WHO the contractor IS. Viz., D4: Insurance Company pays in full within 7 days.

Top2-Move forward with the contractor and finish the project	**Gender**			**Age**			**Self- declared attitude toward insurance companies**		
Group (Binary Ratings)	**Total**	**Male**	**Female**	**25-34**	**35 - 44**	**45+**	**I trust them**	**I have to watch them**	**I don't trust them**
Base Size	100	49	51	26	31	42	54	29	11
Additive Constant	38	36	39	61	29	19	43	26	31
Question A: What is the contractor hired for?									
Contractor hired for repairing a roof.									6
Contractor hired for remodeling kitchen.		1							4
Contractor hired for repairing problems and bringing the house into code		1			6			5	
Contractor hired for eliminating dangerous materials (oil tank, radon, etc.)	3	5			5		1	5	12
Question B: What is the contractor experience?									
Contractor is bonded, licensed, and insured expert	5	5	4	5	8	2	6	3	
Contractor is neighbourhood favorite, locally highly ranked	2	3	1	5	4		5		3
Contractor is a long-term family friend	2	2	2		8	1	2		7
Contractor is recommended by a local business with whom you're doing the project	5	7	2	7	2		6	1	5
Question C: What can go wrong?									
Project delivered 90 days late									
Project delivered 30% over budget									
Contractor unexpectedly disappeared and needed to rebid									
Project not of quality - inspected and failed inspection									
Question D: What are the outcomes re insurance?									
Insurance company tried to refuse to payment via technicalities							2		1
Insurance company demands extraordinary amount of documentation									
Reputation: Insurance company is known to delay payment for several months, pays after a year.									1
Insurance company pays in full within 7 days.	13	11	15		17	13	14	18	

Table 2: Positive coefficients for elements showing how the element drives interest moving forward with a contractor, along with contractor insurance.

	Top2-Move forward with the contractor to complete the project	**Total**	**MS1 Project**	**MS Contractor**	**MS3 Legal Finance**
	Base Size	100	21	24	55
	Additive Constant	38	48	32	35
	Mind Set 1-Focus on the PROJECT				
A1	Contractor hired for repairing a roof.		10		
D4	Insurance company pays in full within 7 days.	13	9	3	20
A4	Contractor hired for eliminating dangerous materials (oil tank,radon, etc.)	3	8		6
A2	Contractor hired for remodeling kitchen.		8		
A3	Contractor hired for repairing problems and bringing the house into code		7		
	Mind Set 2-Focus on the contractor				
B2	Contractor is neighbourhood favorite, locally highly ranked	2		15	1
B1	Contractor is bonded, licensed, and insured expert	5		13	8
B3	Contractor is a long-term family friend	2		12	4
B4	Contractor is recommended by a local business with whom you're doing the project	5		10	7
C3	Contractor unexpectedly disappeared and needed to rebid			8	
	Mind-Set 3-Focus on Legal and Financial				
D4	Insurance company pays in full within 7 days.	13	9	3	20
B1	Contractor is bonded, licensed, and insured expert	5		13	8
	Irrelevant elements				
D1	Insurance company tried to refuse to payment via technicalities		2		0
D2	Insurance company demands extraordinary amount of documentation		1		
D3	Reputation: Insurance company is known to delay payment for several months, pays after a year.		2		
C2	Project delivered 30% over budget				
C1	Project delivered 90 days late			5	
C4	Project not of quality - inspected and failed inspection		1	4	

Table 3: Positive coefficients the total panel and the three emergent mind-sets.

		Total	Male	Female	A 25-34	A 35-44	A 45+	I trust them	I have to watch them	I don't trust them	MS1-Focus on project	MS2-Focus on contractor	MS3-Focus on legal/ financial
	Additive constant	**33**	**36**	**30**	**31**	**33**	**32**	**28**	**37**	**53**	**30**	**39**	**31**
A 1	Contractor hired for repairing a roof			**9**		**8**		**9**	**10**				**10**
A 2	Contractor hired for remodeling kitchen												**8**
A 3	Contractor hired for repairing problems and bringing the house into code				**17**								**8**
C1	Project delivered 90 days late	**15**	**12**	**17**		**23**	**15**	**13**	**18**				**25**
C2	Project delivered 30% over budget	**13**		**19**		**15**	**18**	**11**	**16**				**21**
C3	Contractor unexpectedly disappeared and needed to rebid	**19**	**14**	**23**	**13**	**19**	**22**	**17**	**24**				**30**
C4	Project not of quality - inspected and failed inspection	**22**	**18**	**25**		**23**	**27**	**20**	**27**	**12**	**10**		**33**
D 1	Insurance company tried to refuse to payment via technicalities			**9**		**10**	**8**			**18**		**11**	
D 2	Insurance company demands extraordinary amount of documentation						**8**			**12**			
D 3	Reputation: Insurance company is known to delay payment for several months, pays after a year.	**9**		**12**	**5**	**9**	**12**	**9**	**9**	**14**		**10**	**13**

Table 4: Strong-performing coefficients for elements, showing how the element drives interest in STOPPING THE PROJECT. The data shows the strong coefficients emerging from a 'bottom-up analysis' where the positive coefficients mean stop the Project. Only elements strong in at least one subgroup are shown.

Mind-sets emerging from the pattern of pattern of responses show a radically different pattern (see **Table 3**). Three mind-sets emerged, two of which are small (MS1 focusing on project; MS2 focusing on the contractor). The third mind-set (focusing on legal and financial aspects of the job and the contractor relationship constitutes more than half of the respondents, 55 out of 110. The mind-sets show dramatically stronger performing elements, which is to be expected since the mind-sets reflect groups of respondents who think quite differently from each other, based upon the pattern of their coefficients. The mind-sets differ dramatically in their basic interest in moving forward, with those respondents in Mind-Set 1 (Project focused) showing the highest level of interest in moving forward (additive constant=48). The other two mind-sets, Mind-Set 2 (Contractor focused) and Mind-Set 3 (Legal/Financial focused) show lowest levels of interest in moving forward (additive constants 32 and 35, respectively).

It is in the specific elements where we see the big differences, both in the nature of the elements with drive 'moving forward', and in the magnitude of those strong-performing elements. Those interested in moving forward, beginning with the highest basic interest (additive constant=48) are all significantly positive to the messages about the project, with coefficients between 8 and 10. In contrast, it is Mind-Set 2, focus on the contractor, the 'personal link' which drive the strongest positive response for moving forward. The coefficients are 8-15, suggest the strong effect of emotions. Finally, those in Mind-Set 3 (Legal/Finance) react most strongly to the legal and financial aspects.

When 'things go wrong' we get a different picture. Table 4 shows the set of coefficients we do the reverse analysis, looking for the elements which drive the respondent to say 'stop'. The analysis begins with a different recoding. The ratings at the low end of the scale, 1 and 2, are converted to 100, and the ratings of 3,4 and 5 are converted to. A small random number is added, and then the equations are recalculated. The additive constant shows the basic likelihood of 'stopping' without any elements. The coefficient of each element shows how strong it is as a message to stop the process. We show only the additive constant and the strong-performing elements. The coefficients are those corresponding to elements which 'stop the process'.

The additive constant, the proclivity to stop the process, is low except for those respondents who, at the start of the experiment, before the actual evaluation, declare that they do not trust insurance compaiess. Their additive constant is 53, 14 points higher than the next highest group (Mind-Set 2, focusing on the contractor). There are two classes of elements which drive to 'stop'. The first is the nature of the project, with roof repairs being the least trusted, then the contractor hired to bring the house into code, and then finally the contractor hired for remodeling the kitchen. The roof contractor is really the one least trusted. The second group of elements, which should come as no surprise, is the failure of the contractor to deliver what has been agreed to. Surprising, the youngest respondents, age 25-34, are the least likely to respond that they want to stop the project.

Response (Consideration) Time-Making a Decision

The foregoing analyses of responses focus on the conscious evaluation of the different vignettes. As the data suggests, the results lend themselves to straightforward interpretation. Even though the speed of the experiment was such that respondents appear to have rushed through the study, as they were meant to, the conscious responses suggested that the respondents were actually paying attention, even though in many of these studies respondents aver quite vehemently that they were confused, and were simply guessing. That 'guessing' certainly does not appear to generate random data.

At a deeper level, however, one can study the response time, the time it takes to read a vignette and rate it. Of course, the time to rate each vignette does not tell us much, just as the rating of a single vignette does not tell us much. Yet, we can use OLS regression to deconstruct the response time into the number of seconds estimated for a person to 'mentally process' each element. There will, of course, be some slack time needed to read and to rate, but this will be divided among the individual response times for the elements, those times estimate by OLS regression. The analysis proceeds as before, using as input ALL the data from a particular subgroup (e.g., age, gender, answer to classification question about contractors, mind-sets). We focus here

only on the four models, specifically total panel, and the three mind-sets (see **Table 5**). The response time model is: RT = k_1(A1) + k_2(A2) … k_{16}(D4). The response time model is expressed in the same way as the binary, except for the absence of the additive constant. The ingoing assumption is that in the absence of elements the response time is 0. The response time is measured to the nearest tenth of second. The coefficients are also presented to the nearest tenth of second, viz., at the level of resolution of the measurement itself, rather than greater resolution (viz., not to the hundredth of a second). Table 5 shows only those response times exceeding 1.3 seconds for the element. There are quite a number of these long response times, especially for Mind-Set 3, focusing on the legal/finance issues, individuals who would be expected to pay attention to the so-called 'fine print'. Those in Mind-Set 2, paying attention to the contractor, focus on descriptions of the contractor. Those in Mind-Set 1, focusing on the project itself, do not pay deep attention to any of the elements, but rather read them quickly. It is clear that one element needs no thought for driving a judgment, element C1, Project delivered 90 days late. It is clear from the elements of response time, considered in the area of financial topics, that response time or consideration time presents to the researcher an entirely new opportunity to understand the nature of how people think and make decisions in topic areas that are commercial, serious, service-related rather than product related.

	Response (Consideration) Time	Total	MS1-Project	MS2-Contractor	MS3-Legal/Finance
	Base Size	100	21	24	55
B1	Contractor is bonded, licensed, and insured expert	1.9		1.6	2.3
B4	Contractor is recommended by a local business with whom you're doing the project	1.8		1.3	2.4
B3	Contractor is a long-term family friend	1.7			2.1
B2	Contractor is neighbourhood favorite, locally highly ranked	1.6		1.3	2
D4	Insurance company pays in full within 7 days.	1.5		1.3	1.8
A3	Contractor hired for repairing problems and bringing the house into code	1.4			1.8
A4	Contractor hired for eliminating dangerous materials (oil tank,radon, etc.)	1.4			2
D2	Insurance company demands extraordinary amount of documentation	1.4			1.7
D3	Reputation: Insurance company is known to delay payment for several months, pays after a year.	1.4			1.8
D1	Insurance company tried to refuse to payment via technicalities	1.3			1.5
C2	Project delivered 30% over budget				1.4
C3	Contractor unexpectedly disappeared and needed to rebid				1.6
A1	Contractor hired for repairing a roof.				1.6
C4	Project not of quality - inspected and failed inspection				1.4
A2	Contractor hired for remodeling kitchen.				1.4
C1	Project delivered 90 days late				

Table 5: Coefficients for the response time for the 16 elements, from Total Panel and the three mind-sets. Only coefficient of 1.3 (seconds) or longer are shown.

Discovering the Mind-Sets in the Population

During the past sixty years consumer researchers have suggested that the purveyor of products and services might do well by segmenting or dividing the prospects, either by WHO the prospects are (geo-demographics), by hat the prospects BELIEVE (psychographics) or by what the prospects DO (behavior). All three forms of dividing people have their adherents, and their detractors. All three methods, and the dozens of specific procedures in each general method, begin with a general division of the prospective consumers into easy-to-develop groups. Once these groups are created, it is the task of the marketer to know what to say.

This study, building from the 'bottom up', with the specifics and thus granularity of the topic, suggests a problem with conventional segmentation. The problem is that the three mind-sets, specific to the topic, divide across conventional groupings of people, as Table 6 shows. The three mind-sets show similar distributions in WHO the person is (gender, age) and what the person BELIEVES (Answer given at the beginning of the study, in the self-classification portion). One would never guess from **Table 6** that the three mind-sets could be so different. These mind-sets comprise the same type of people, at least from the outside.

Rather than assuming that people who look similar to each other in terms of gender, age, or even attitude toward contractors will be similar in the way they respond to the messages about contractor insurance, a more sensible way might be to create a small intervention, a set of easy-to-answer questions, the pattern of responses to which assign a person tone of the three mind-sets. When this set of questions, the so-called PVI (personal viewpoint identifier), is deployed the knowledge about the mind-set membership allows the insurance salesperson to select the right insurance package for the prospect.

The interaction becomes more personalized, simply because the insurance salesperson now knows the 'insurance-relevant' mind of the prospect, in a way which is granular.

	Total	MS1 Project	MS2 Contractor	MS3-Legal/ Financial
Total	100	21	24	55
Male	49	12	13	24
Female	51	9	11	31
Age 25-34	21	5	7	9
Age 35-44	31	9	4	18
Age 45+	48	7	13	28
Insurance companies: I trust them	54	14	11	29
Insurance companies: I have to watch them	29	4	9	16
Insurance companies: I don't trust them	11	3	3	5

Table 6: The division of respondents into WHO the person is (gender, age), and what the person believes with respect to insurance companies).

Recently, author Moskowitz and colleague, Professor Attila Gere, have developed a PVI, based upon the pattern responses to the elements, and using Monte-Carlo simulation to identify the best set of relevant elements to use as the six questions. The PVI enjoys a strong advantage over other methods because the raw material used to create the PVI is identical to the raw material used to define the mind-sets. For the PVI presented here, the specific computations were made from the data summarized in Table 4, showing how each element corresponded to stopping the project. The tenor of the low side of the

scale, stopping the project, made more sense. **Figure 1** shows the PVI for one respondent. The actual link as of this writing (Summer 2020), can be found at https://www.pvi360.com/TypingToolPage.aspx-?projectid=196&userid=2018. **Figure 2** shows the feedback for one respondent. The mind-set to which a respondent is assigned appears as shaded boxes box. The other two mind-sets appear as unshaded boxes.

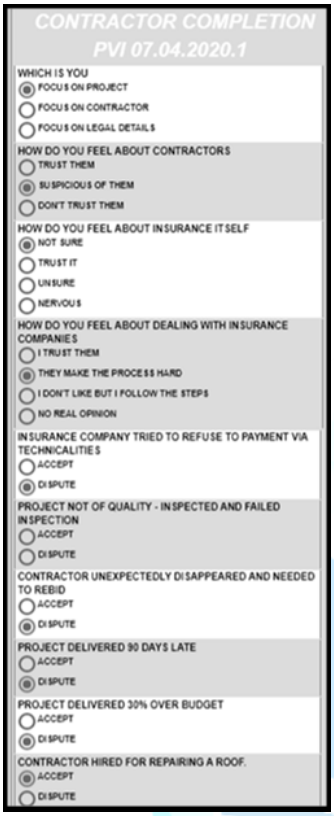

Figure 1: The viewpoint identifier.

PROJECT-FOCUS	YOU ARE INTERESTED IN THE PROJECT, AND HOW BEST TO DO IT	CONTRACTOR-FOCUS	YOU CHOOSE THE CONTRACTOR AFTER RESEARCHING THE AVAILABLE ONES	LEGAL/FINANCIAL - FOCUS	YOU ARE METICULOUS TO ENSURE THAT THE JOB GETS DONE ON TIME, ACCORDING TO SPECIFICATION, AND WITHIN PRICE RANGE

Figure 2: The feedback given to the respondent regarding mind-set membership.

Discussion and Conclusions

The experiment reported here on regarding the specific messages which drive a prospective customer to purchase insurance covering home repair jobs represents an intermediate step between the insurance company which designs and sells the insurance, and the prospective customer who needs to be convinced. As noted above, much if not a significant proportion of information about what it takes to convince the prospect to buy comes from the marketing and marketing research departments of insurance companies. The academic literature focuses on the patterns of purchase, who purchases, why they purchase, and the financial aspects of the insurance itself. There are a lot of insurance companies in the world, and, in turn, a great deal of advertising, advertising testing, and an entire world of professional consumer researchers supporting the effort to sell the advertising. Tools such as focus groups produce insight into what insurance prospects need, and the language that the insurance prospects, the customers, actually use to express their need. Following the early research efforts comes concept tests, and limited roll outs of insurance plans, combining the insurance company, agents, advertising agencies, and media specialists.

Mind Genomics occupies a unique position in this mix of expertise, and the mix of different groups. Mind Genomics is an experiment, through which one can understand the specific, granular preferences of prospects in a particular domain, such as home project insurance. What is important to note is that the Mind Genomics effort is to understand the minds of people from the 'ground up', for a specific topic (project insurance) rather than to look at the topic from the perspective of theory (e.g., Theory of Reasoned Behavior), or from the perspective of commerce (viz., 'what works' in advertising messaging). The 'larger project' of Mind Genomics is to assemble the results these studies, and from that assemblage, formulate grounded hypotheses about how the person weighs information and makes decision in the world of commercially-relevant topics.

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